SST-Modules

REFERENCE MANUAL

This manual describes the following models:

SST-MX	**SST-4622**
SST-SX	**SST-3632**
SST-SBSC	**SST-4632**
SST-SBSC 3632T	**SST-SBSC 4632T**

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STOP!

Crown SST modules may only be installed by Crown or an authorized Warranty Service Center. The name of a Service Center near you may be found online at www.crownaudio.com, or by contacting Crown Factory Service at:

Crown Factory Service

1718 W. Mishawaka Rd., Elkhart, IN 46515 USA
Phone: 800-342-6939 (North America, Puerto Rico and Virgin Islands)
or 574-294-8200 Fax: 574-294-8301
Internet: http://www.crownaudio.com

The information furnished in this manual does not include all of the details of design, production, or variations of the equipment. Nor does it cover every possible situation which may arise during operation or maintenance. If you need special assistance beyond the scope of this manual, please contact Crown Customer Service.

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1 Welcome

Crown®'s *System Solution Topology* (*SST*) modules bring you superior control and flexibility with the convenience and cost savings of plug-in processing. SSTs plug quickly and easily into the back of your amp.

When you use a Crown SST module to split the power drive to the loudspeaker components, you gain a wide range of advantages, including:

1. Increased gain because the insertion loss of passive crossover networks is eliminated.
2. Consistent power bandwidth: power bandwidth is changed in multi-way passive systems if transducers change impedance or vaporize (blow up).
3. Levels can be matched more accurately to the components.
4. Quicker troubleshooting.
5. Improved dynamic range.
6. Better protection of components due to steep 24-dB/octave filters.

With hard-wired precision components, SST modules deliver consistent bandwidth control, more accurate level matching, and increased gain (with none of the insertion loss found with passive crossover networks). Compact and versatile, Crown SST modules continue the Crown tradition for fast setup, great-sounding output and exceptional value.

1.1 Wiring

All SST modules feature balanced inputs. Some models also feature balanced outputs for routing signals to other amplifiers in biamped and triamped systems.

Following are the standard wiring conventions to follow when wiring balanced connections to SST modules:

XLR (AES Standard)

Pin 1: ⏚

Pin 2: +

Pin 3: –

Tip Ring Sleeve

Tip: +

Ring: –

Sleeve: ⏚

Barrier Block and Terminal Block connections should be wired as marked on the SST front panel.

2 SST-MX

The *SST-MX* module is a fourth-order Linkwitz-Riley type crossover with a fixed crossover point set at 100 Hz.

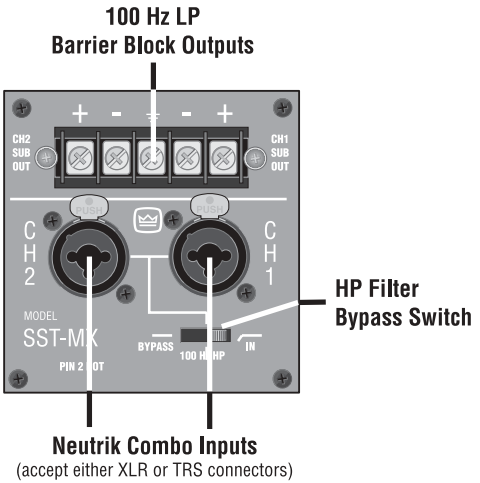

Figure 2.1 SST-MX Front Panel Controls and Connectors

2.1 Controls

HP Filter Bypass Switch

This switch enables/disables the high-pass filter on the local amplified output signal. Select IN to enable high-pass filter; select BYPASS to disable filter for these outputs.

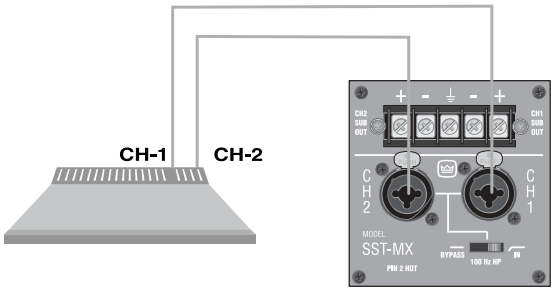

Figure 2.2 Typical Input Wiring

2.2 System Setup

Typical input wiring is shown in Figure 2.2 on the previous page.

Stereo Mode

Standard stereo-mode output configuration (shown in Figure 2.3) routes the signal in the following manner: low-frequency signal from the amplifier's Channel 1 input is sent to the Channel 1 barrier block output; low-frequency signal from Channel 2 input is sent to the Channel 2 barrier block output; high-frequency signal from Channel 1 input is sent to the local (amplified) Channel 1 output; high-frequency signal from Channel 2 input is sent to the local (amplified) Channel 2 output.

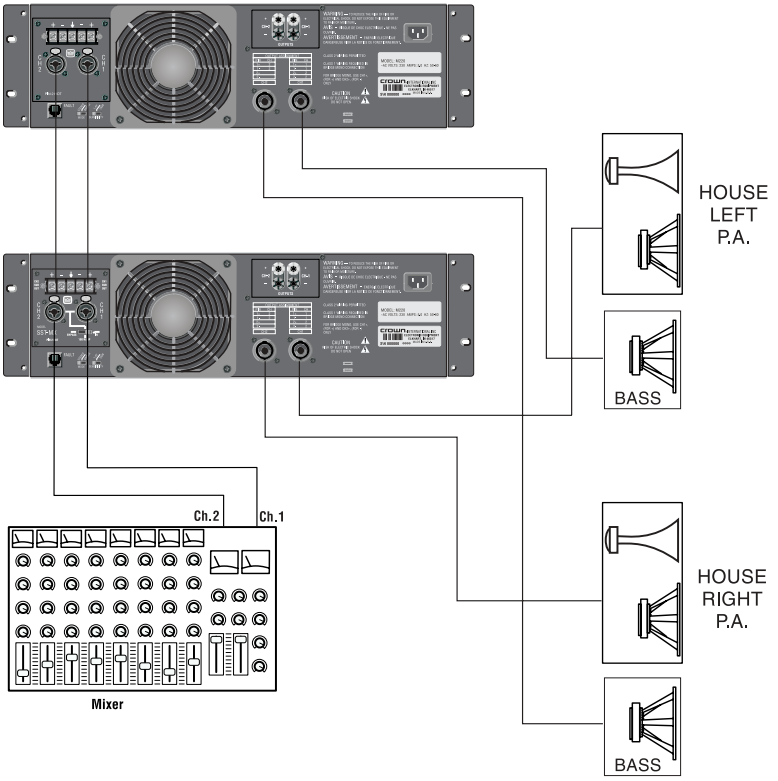

Figure 2.3 Typical stereo configuration using Crown SST-compatible amplifier and the SST-MX crossover module.

Bridge-Mono Mode

Standard bridge-mono-mode output configuration (shown in Figure 2.4) routes the signal in the following manner: low-frequency signal from the amplifier's Channel 1 input is sent to the Channel 1 barrier block output; high-frequency signal from Channel 1 input is sent to the local (amplified) Channel 1 output.

Note: Only the Channel 1 audio signal is required to drive the amplifier during mono operation. If you are using the SST-MX module with the amplifier in mono mode, be sure to turn your Channel 2 level controls all the way down.

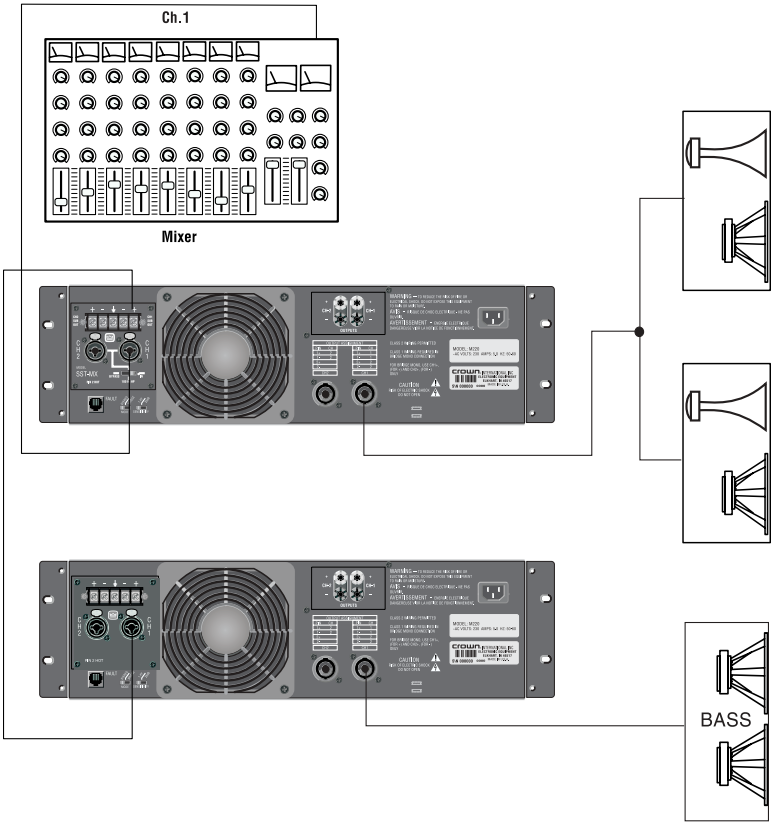

Figure 2.4 Typical Bridge-Mono configuration using Crown SST-compatible amplifier and the SST-MX crossover module.

High-Pass Filter Bypass

When activated, the High-Pass Filter Bypass (Section 2.1) allows the full-range signal to be sent to the local (amplified) Channel 1 and Channel 2 outputs, while still providing filtered low-frequency output to the Channel 1 and Channel 2 barrier block outputs. This configuration works well if you have full-range speakers driven by the main amplifier, plus dual subs on an auxiliary amp for sub-bass output.

2.3 Block Diagram

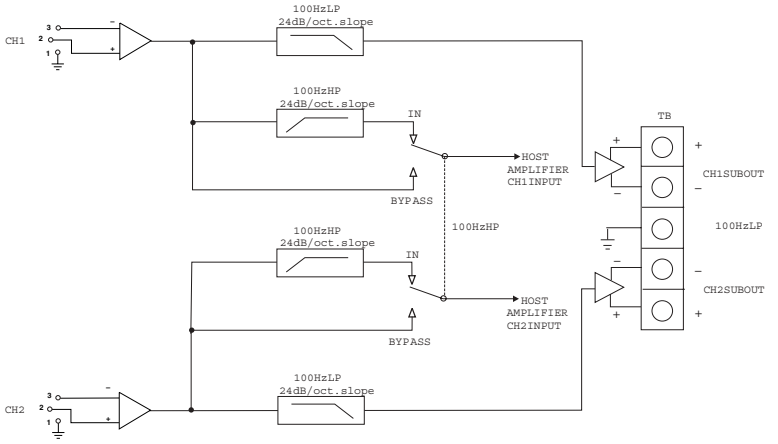

Figure 2.5 SST-MX Block Diagram

2.4 Specifications

Note: Specifications describe typical results using the module installed in a Crown SST-compatible amplifier. All measurements are in Stereo mode with 8-ohm loads and an input sensitivity of 26-dB gain at 1-kHz rated power unless otherwise specified. Specifications for units supplied outside the U.S.A. may vary slightly at different AC voltages and frequencies.

Frequency Response: ±0.1 dB from 20 Hz to 20 kHz.

Signal to Noise (A-Weighted): Better than 85 dB below rated power.

Input Impedance: 20 k ohms balanced, 10 k ohms unbalanced.

Output Impedance: 600 ohms balanced.

Total Harmonic Distortion (THD): 1 kHz rated power, less than 0.1% true THD.

Crosstalk: > 50 dB from 20 Hz to 20 kHz.

Maximum Output: +18 dB into 600 ohms.

3 SST-SX

The *SST-SX* module is a fourth-order Linkwitz-Riley type crossover switchable between 80 Hz and 120 Hz. It also includes summed low-frequency output.

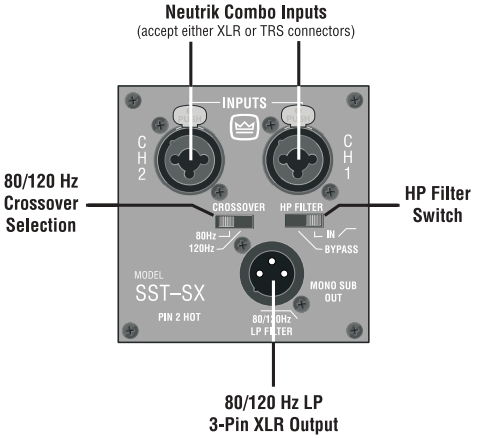

Figure 3.1 SST-SX Controls and Connectors

3.1 Controls

80/120 Hz Crossover Selector

A two-position switch, located on the front panel of the module, is used to select a crossover frequency of 80 or 120 Hz for both channels 1 and 2 of the local (amplified) signals. This switch also determines the LP Filter frequency routed to the Mono Sub Out connector.

HP Filter Bypass Switch

This two-position switch enables/disables the high-pass filter on the Channel 1 and 2 local (amplified) signals.The HP Filter Bypass Switch does not affect signals routed to the Mono Sub Out connector.

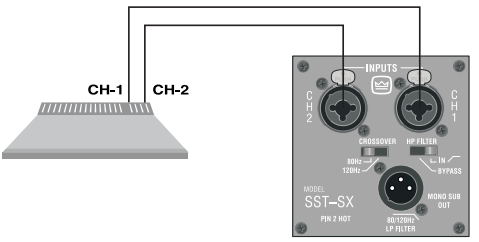

Figure 3.2 Typical Input Wiring

3.2 System Setup

Typical input wiring is shown in Figure 3.2 on the previous page.

Stereo Mode

For standard stereo-mode output wiring, connect your system components as shown in Figure 3.3. This configuration routes the signal in the following manner: low-frequency signals from the local amplifier are sent to the male XLR output; high-frequency signals from the local amplifier's Channel 1 input are sent to the local (amplified) Channel 1 output; high-frequency signal from the host amplifier's Channel 2 input are sent to the local (amplified) Channel 2 output.

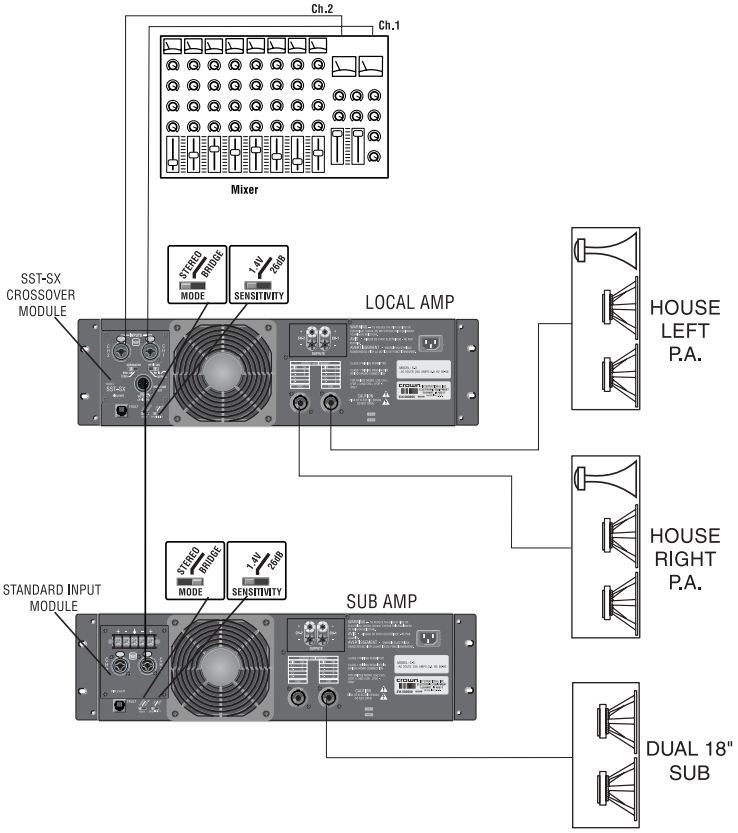

Figure 3.3 Typical Stereo with Mono Sub Configuration Using the SST-SX Crossover Module

Bridge-Mono Mode

For standard bridge-mono-mode output wiring, connect your system components as shown in Figure 3.4. This configuration routes the signals in the following manner: low-frequency signals from the host amplifier are sent to the male XLR output; high-frequency signal from the host amplifier's Channel 1 input are sent to the local (amplified) Channel 1 output.

Note: Only the Channel 1 audio signals are required to drive the amplifier during mono operation. If you are using the SST-SX module with a Crown SST-compatible amplifier in mono mode, be sure to turn your Channel 2 level control all the way down.

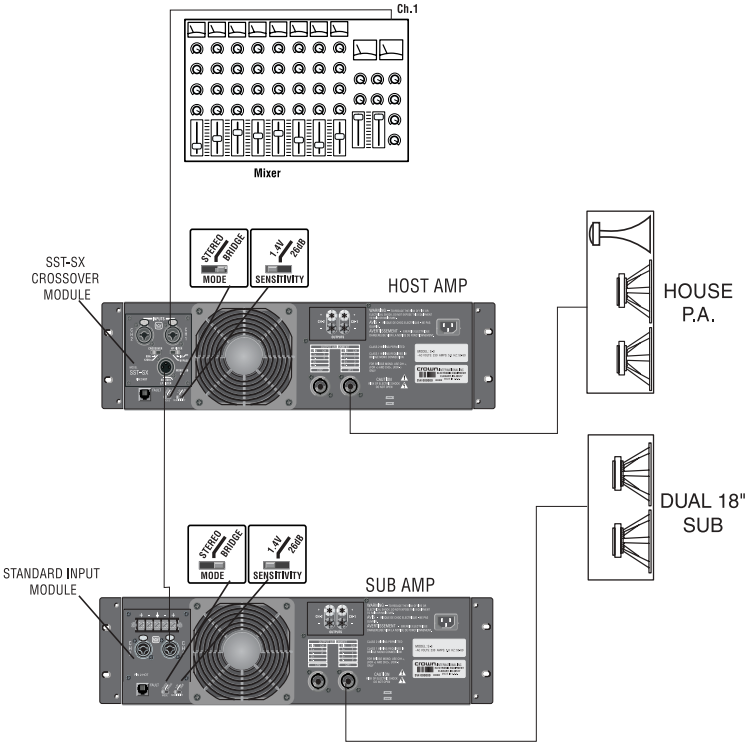

Figure 3.4 Typical Bridge-Mono Configuration Using the SST-SX Crossover Module

High-Pass Filter Bypass

When activated, the High-Pass Filter Bypass (Section 3.1) allows the full-range signal to be sent to the local (amplified) Channel 1 and Channel 2 outputs, while still providing filtered low-frequency output to the Mono Summed Male XLR Output. This configuration works well if you have full-range speakers driven by the main amplifier, plus a sub on an auxiliary amp for sub-bass output.

3.3 Block Diagram

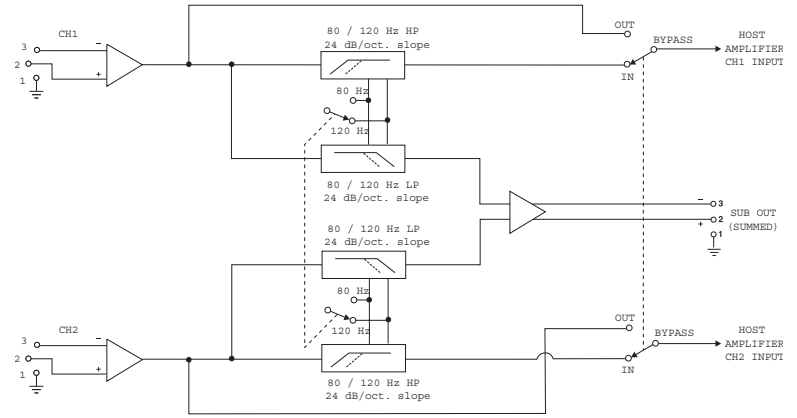

Figure 3.5 SST-SX Block Diagram

3.4 Specifications

Note: Specifications describe typical results using the module installed in a Crown SST-compatible amplifier. All measurements are in Stereo mode with 8-ohm loads and an input sensitivity of 26-dB gain at 1-kHz rated power unless otherwise specified. Specifications for units supplied outside the U.S.A. may vary slightly at different AC voltages and frequencies.

Performance

Frequency Response: ±0.1 dB from 20 Hz to 20 kHz at 1 watt.

Signal to Noise Ratio, A-Weighted: Better than 105 dB below rated 1-kHz power;

20 Hz to 20 kHz: Better than 100 dB below rated 1-kHz power.

Total Harmonic Distortion (THD): 1-kHz rated power, 1.0% or less true THD from 20 Hz to 20 kHz.

Crosstalk: Better than 50 dB below rated power, 20 Hz to 20 kHz.

Input/Output

Input Impedance: Nominally 20 k ohms, balanced. Nominally 10 k ohms, unbalanced.

Output Impedance: 600 ohms, balanced.

Maximum Output: +15 dBm into 600 ohms.

4 SST-SBSC

The Crown SST-SBSC modules are stereo crossover networks with equalization and summed bass output. Truly professional crossovers, SST-SBSC modules use hard-wired precision components that stay at the factory-set frequencies for consistent bandwidth control.

SST (System Solution Topologies) modules install into the back of Crown SST-compatible amplifiers, saving rack space and simplifying system wiring.

Several SST-SBSC modules with different crossover frequencies are available (see Table 1 on page 15).

4.1 Specifications

Signal to Noise (A-Weighted): Better than 85 dB below rated power.

Input Impedance: 20 k ohms balanced, 10 k ohms unbalanced.

Output Impedance: 600 ohms balanced.

Total Harmonic Distortion (THD): 1 kHz rated power, less than 0.1% true THD.

Crosstalk: > 50 dB from 20 Hz to 20 kHz.

Maximum Output: +18 dB into 600 ohms.

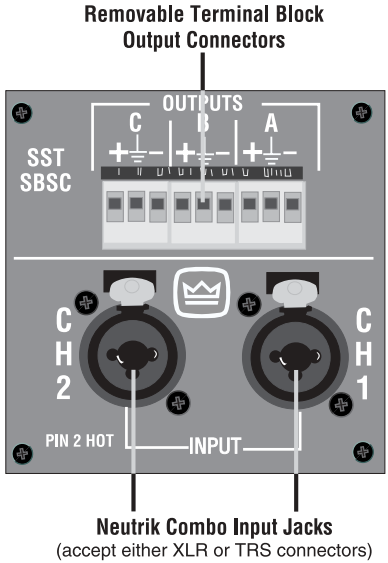

Figure 4.1 SST-SBSC Front Panel Connectors

4.2 Features

- Stereo biamp and sub output. Two in, five out.
- Mono summing of sub output for driving subwoofers.
- Certain modules have 2.8-kHz CD horn equalization.
- Certain modules are designed specifically for JBL ScreenArray™ loudspeakers.
- Neutrik® Combo input jacks.
- Removable barrier block jacks for balanced output to other components.
- 18-dB/octave high-pass filter on sub and 18-dB/octave high-pass filter on low-frequency outputs.
- 24-dB/octave low-pass filter on high-frequency outputs.

4.3 Block Diagram

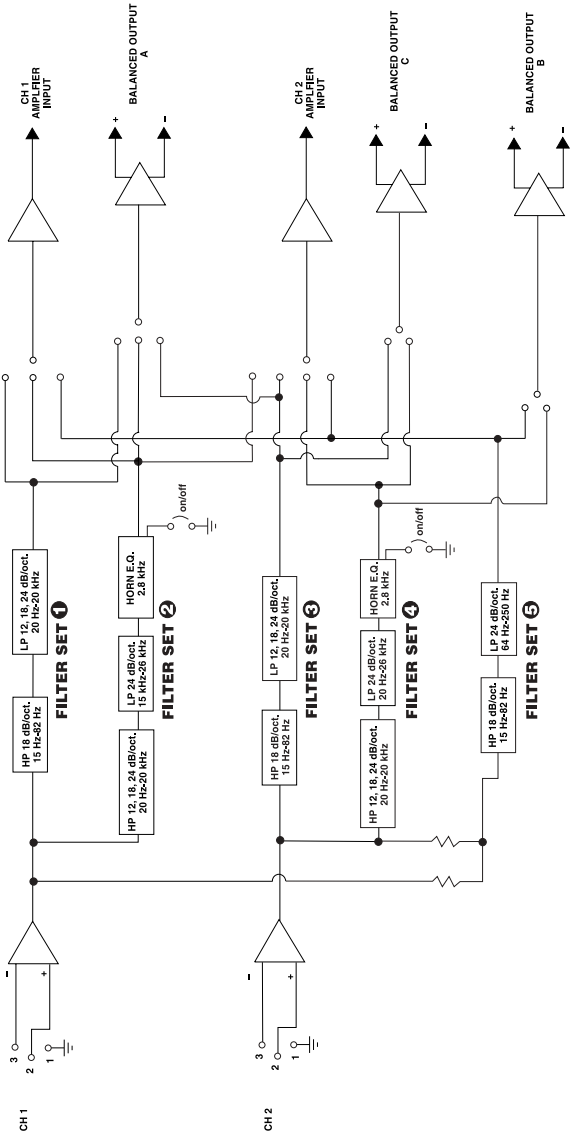
CH 1 AMPLIFIER INPUT
BALANCED OUTPUT A
CH 2 AMPLIFIER INPUT
BALANCED OUTPUT C
BALANCED OUTPUT B
on/off
on/off
LP 12, 18, 24 dB/oct. 20 Hz-20 kHz
HP 18 dB/oct. 15 Hz-82 Hz
FILTER SET 1
HORN E.Q. 2.8 kHz
LP 24 dB/oct. 15 kHz-26 kHz
HP 12, 18, 24 dB/oct. 20 Hz-20 kHz
FILTER SET 2
LP 12, 18, 24 dB/oct. 20 Hz-20 kHz
HP 18 dB/oct. 15 Hz-82 Hz
FILTER SET 3
HORN E.Q. 2.8 kHz
LP 24 dB/oct. 20 Hz-26 kHz
HP 12, 18, 24 dB/oct. 20 Hz-20 kHz
FILTER SET 4
LP 24 dB/oct. 64 Hz-250 Hz
HP 18 dB/oct. 15 Hz-82 Hz
FILTER SET 5
CH 1
CH 2

Figure 4.2 SST-SBSC Block Diagram

4.4 Input Wiring and Crossover Frequencies

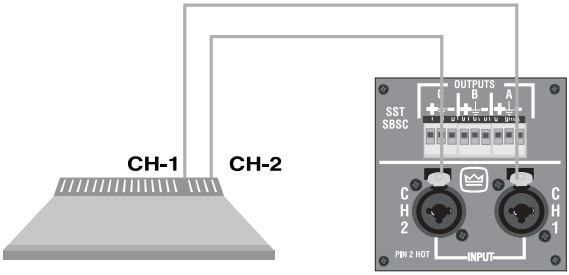

Figure 4.3 Typical Input Wiring

Table 1: SBSC MODULES CROSSOVER FREQUENCIES

MODEL NUMBER	CHANNEL 1 & 2				SUMMED SUB OUTPUT		CD BOOST
	LOW FREQUENCY		HIGH FREQUENCY				
	HIGH PASS	LOW PASS	HIGH PASS	LOW PASS	HIGH PASS	LOW PASS	
SBSCX1	80	800	800	16K	32	80	Y
SBSCX2	80	500	500	16K	32	80	Y
SBSCX12	32	120	120	20K	32	120	N
SBSCX17	32	350	350	20K	32	80	N
SBSCX19	32	1.25K	1.25K	20K	32	100	Y
SBSCX3632T	500	1.2K	1.5K	22.5K	35	450	Y
SBSCX4632T	250	1.2K	1.5K	22.5K	35	250	Y
SBSCJBL4675	32	1.2K	1K	22.5K	32	100	N
SBSCJBL5672	250	2.4K	2.5K	22.5K	32	300	N

4.5 System Setup

Typical input wiring is shown in Figure 4.3 on the previous page.

Stereo

Standard stereo-mode output configuration (Figure 4.4) routes the signal in the following manner:

Lows from SST-SBSC CH1 go through the local amp to its CH1 speaker output.

Lows from SST-SBSC CH2 go through the local amp to its CH2 speaker output.

Highs from SST-SBSC CH1 go to its Output A, and from there through aux amp CH1 to its CH1 speaker output.

Highs from SST-SBSC CH2 go to its Output C, and from there through aux amp CH2 to its CH2 speaker output.

Sub-bass signal (from SST-SBSC CH1 and CH2 summed) goes to SST-SBSC Output B, and from there through sub amp CH1 to its CH1 speaker output.

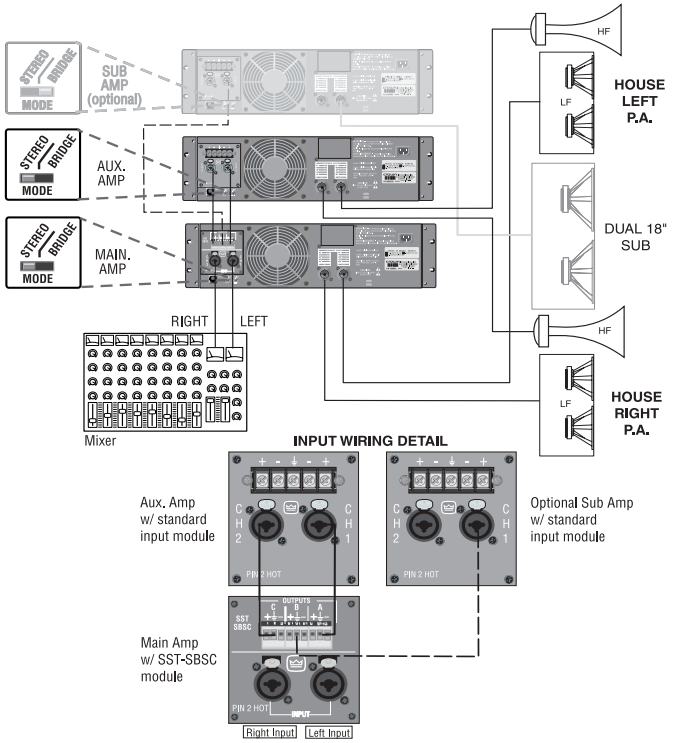

Figure 4.4 Typical stereo configuration using Crown SST-compatible amplifier and an SST-SBSC crossover module

The remaining SST modules described in this manual are designed specifically for use with JBL® ScreenArray® cinema speaker systems. Each SST model is optimized for use with one specific JBL ScreenArray speaker model.

5 SST-4622

The *SST-4622* provides custom crossover and equalization optimized for the JBL ScreenArray model 4622 cinema speaker system.

5.1 System Setup

Connect your system components as shown in Figure 5.2.

Note: The amplifier should be placed in Stereo (Dual) mode.

Figure 5.1 SST-4622 Front Panel Connector

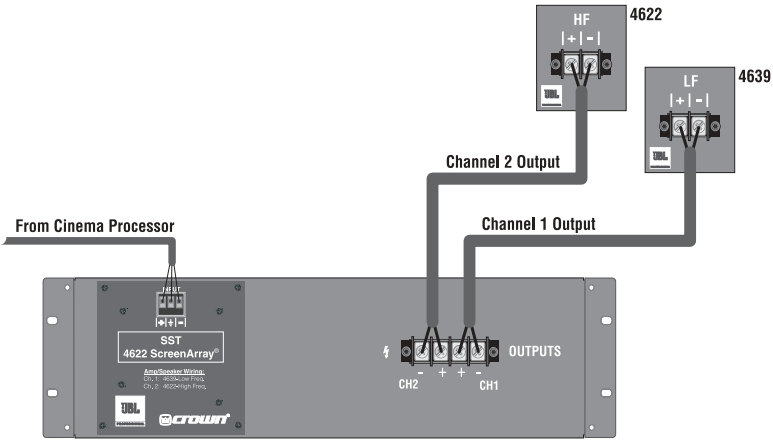

Figure 5.2 Stereo configuration using a Crown SST-compatible amplifier and the SST-4622 module.

5.2 Specifications

Frequency Response: See Figure 5.3.

Signal to Noise Ratio: 90 dB, A weighted.

Input Impedance: 20 k ohms balanced, 10 k ohms unbalanced.

Connectors

Input: Electronically Balanced, 3-position removable terminal block.

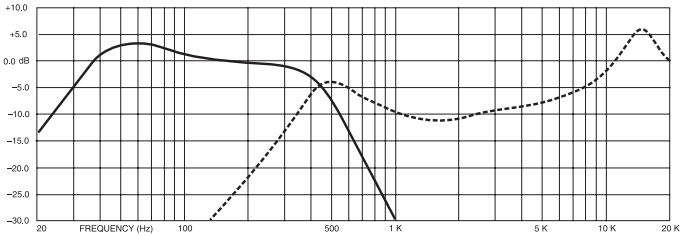

Figure 5.3 SST-4622 Frequency Response

6 SST-3632

The SST-3632 provides custom crossover and equalization optimized for the JBL ScreenArray model 3632 cinema speaker system.

6.1 System Setup

Connect your system components as shown in Figure 6.2.

Note: The amplifier should be placed in Stereo (Dual) mode.

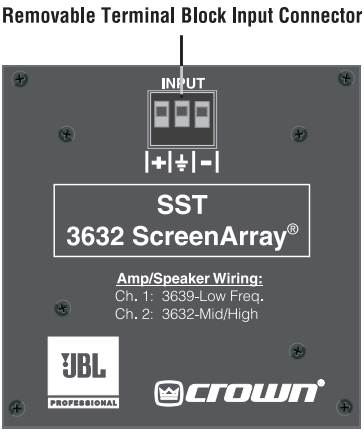

Figure 6.1 SST-3632 Front Panel Connector

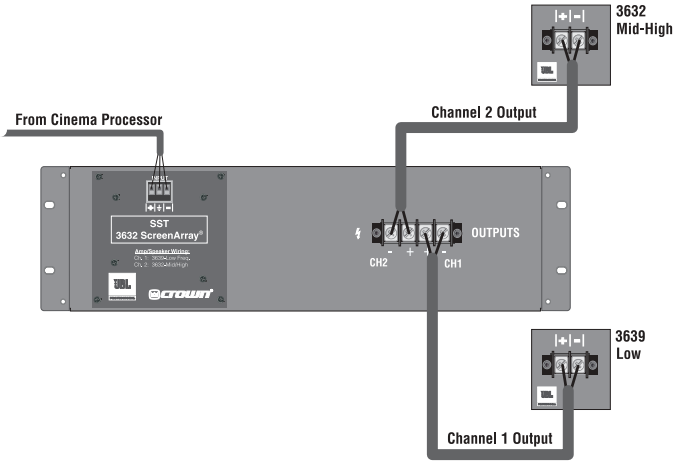

Figure 6.2 Stereo configuration using a Crown SST-compatible amplifier and the SST-3632 module.

6.2 Specifications

Frequency Response: See Figure 6.3.

Signal to Noise Ratio: 90 dB, A weighted.

Input Impedance: 20 k ohms balanced, 10 k ohms unbalanced.

Connectors

Input: Electronically Balanced, 3-position removable terminal block.

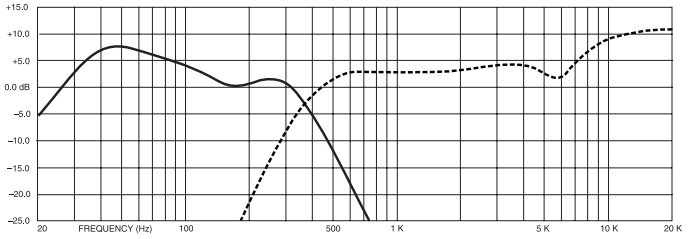

Figure 6.3 SST-3632 Frequency Response

7 SST-4632

The SST-4632 provides custom crossover and equalization optimized for the JBL ScreenArray model 4632 cinema speaker system.

7.1 System Setup

Connect your system components as shown in Figure 7.2.

Note: The amplifier should be placed in Stereo (Dual) mode.

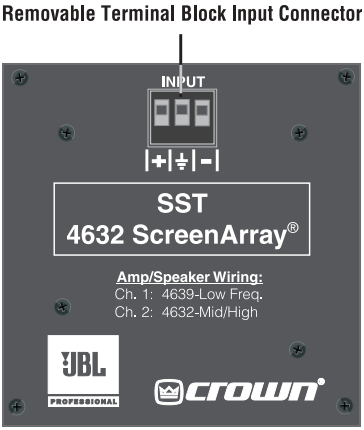

Figure 7.1 SST-4632 Front Panel Connector

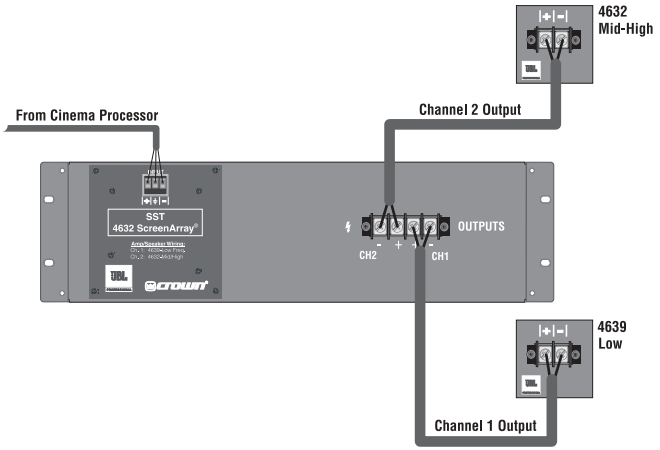

Figure 7.2 Stereo configuration using a Crown SST-compatible amplifier and the SST-4632 module.

7.2 Specifications

Frequency Response: See Figure 7.3.

Signal to Noise Ratio: 90 dB, A weighted.

Input Impedance: 20 k ohms balanced, 10 k ohms unbalanced.

Connectors

Input: Electronically Balanced, 3-position removable terminal block.

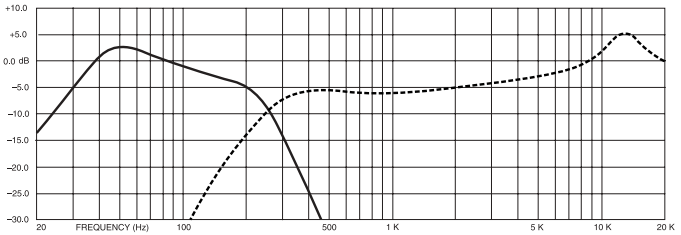

Figure 7.3 SST-4632 Frequency Response

8 SST-SBSC 3632T

The *SST-SBSC 3632T* is an SST-SBSC factory-configured to provide crossover, equalization and signal routing specifically for the triamped JBL ScreenArray model 3632T cinema speaker system.

8.1 System Setup

Your system should be wired as shown in Figure 8.2.

Note: The amplifier should be placed in Stereo (Dual) mode.

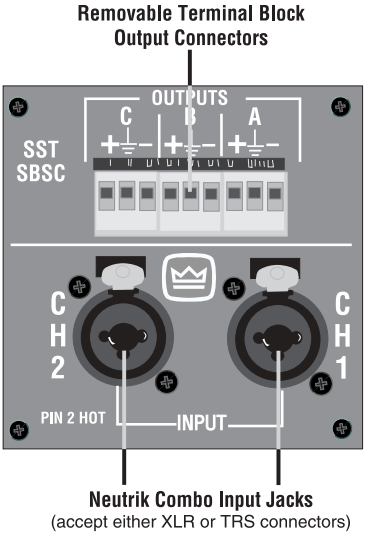

Figure 8.1 SST-SBSC 3632T Front Panel Connectors

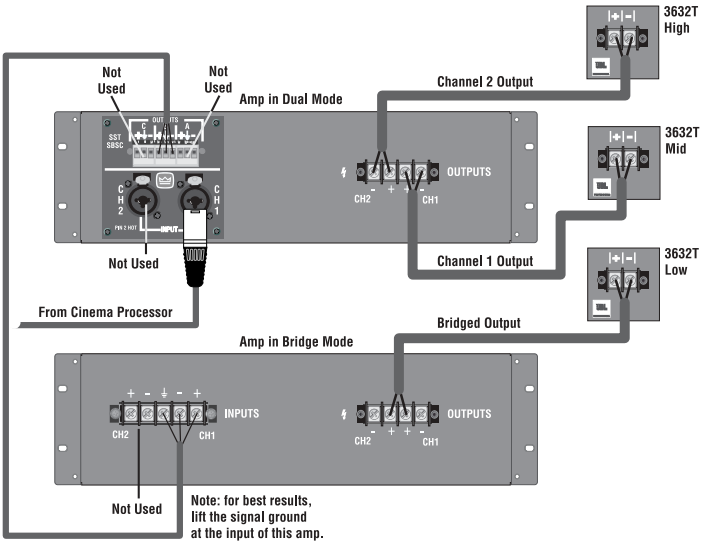

Figure 8.2 SST-SBSC 3632T Screen Channel Wiring
Left, Center and Right Screen Channels Wired Identically

8.2 Specifications

Performance

Frequency Response: See Figure 8.3.

Signal to Noise (A-Weighted): Better than 85 dB below rated power.

Input Impedance: 20 k ohms balanced, 10 k ohms unbalanced.

Output Impedance: 600 ohms balanced.

Total Harmonic Distortion (THD): 1 kHz rated power, less than 0.1% THD.

Crosstalk: > 50 dB from 20 Hz to 20 kHz.

Maximum Output: +18 dB into 600 ohms.

Connectors

Input: Neutrik® Combo jacks.

Output: Removable terminal block.

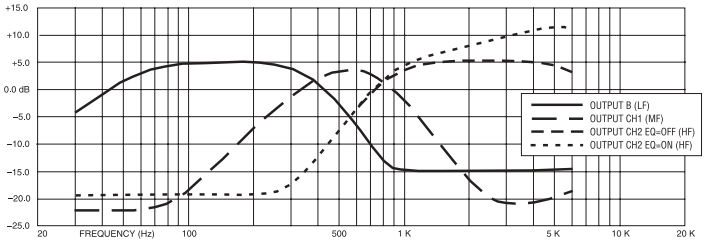

Figure 8.3 SST-SBSC 3632T Frequency Response

9 SST-SBSC 4632T

The *SST-SBSC 4632T* is an SST-SBSC factory-configured to provide crossover, equalization and signal routing specifically for the triamped JBL ScreenArray model 4632T cinema speaker system.

9.1 System Setup

Your system should be wired as shown in Figure 9.2.

Note: The amplifier should be placed in Stereo (Dual) mode.

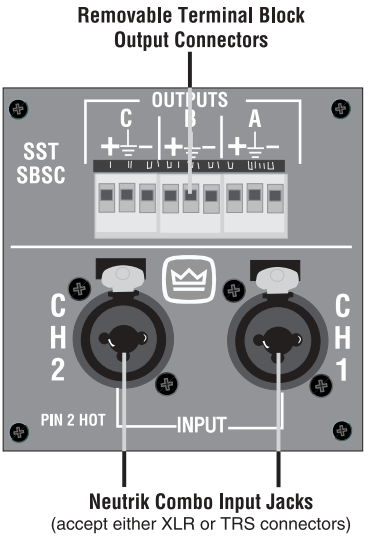

Figure 9.1 SST-SBSC 4632T Front Panel Connectors

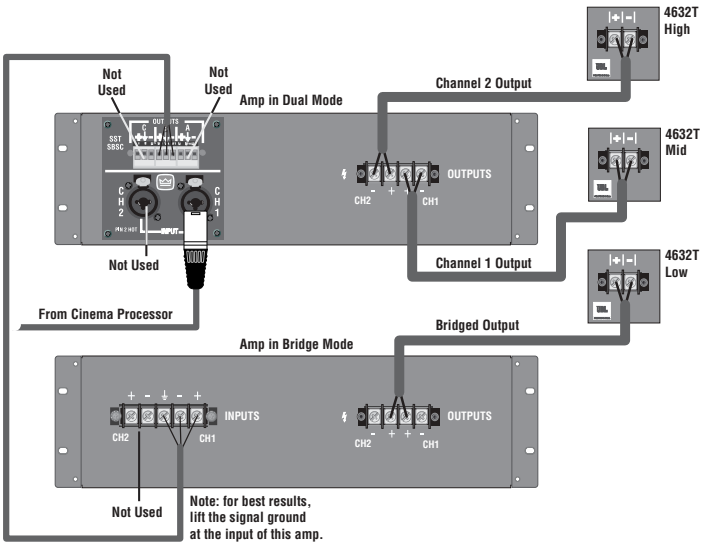

Figure 9.2 SST-SBSC 4632T Screen Channel Wiring
Left, Center and Right Screen Channels Wired Identically

9.2 Specifications

Performance

Frequency Response: See Figure 9.3.

Signal to Noise (A-Weighted): Better than 85 dB below rated power.

Input Impedance: 20 k ohms balanced, 10 k ohms unbalanced.

Output Impedance: 600 ohms balanced.

Total Harmonic Distortion (THD): 1 kHz rated power, less than 0.1% THD.

Crosstalk: > 50 dB from 20 Hz to 20 kHz.

Maximum Output: +18 dB into 600 ohms.

Connectors

Input: Neutrik® Combo jacks.

Output: Removable terminal block.

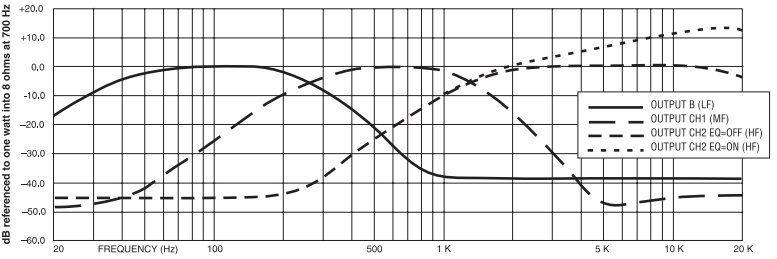

Figure 9.3 SST-SBSC 4632T Frequency Response

10 Service

10.1 Worldwide Service

Service may be obtained from an authorized service center. (Contact your local Crown/Amcron representative or our office for a list of authorized service centers.) To obtain service, simply present the bill of sale as proof of purchase along with the defective unit to an authorized service center. They will handle the necessary paperwork and repair. Remember to transport your unit in the original factory pack.

10.2 US and Canada Service

Service may be obtained in one of two ways: from an authorized service center or from the factory. You may choose either. It is important that you have your copy of the bill of sale as your proof of purchase.

10.2.1 Service at a US or Canada Service Center

This method usually saves the most time and effort. Simply present your bill of sale along with the defective unit to an authorized service center to obtain service. They will handle the necessary paperwork and repair. Remember to transport the unit in the original factory pack. A list of authorized service centers in your area can be obtained from the Crown website at www.crownaudio.com, or by calling Crown Factory Service.

10.2.2 Factory Service

To obtain factory service, fill out the service information page found in the back of this manual and send it along with your proof of purchase and the defective unit to the Crown factory.

For warranty service, we will pay for ground shipping both ways in the United States. Contact Crown Factory Service to obtain prepaid shipping labels prior to sending the unit. Or, if you prefer, you may prepay the cost of shipping, and Crown will reimburse you. Send copies of the shipping receipts to Crown Factory Service to receive reimbursement.

Your repaired unit will be returned via UPS ground. Please contact us if other arrangements are required.

10.2.3 Factory Service Shipping Instructions:

1. Before sending a Crown product to the factory for service, first call the Crown Factory Service for a return authorization (RA) number.
2. Be sure to fill out the service information form that follows and enclose it with your shipment, either inside the box or in a packing slip envelope securely attached to the outside of the shipping carton. Do not send the service information form separately. If you are sending the unit from a Shipping Center, we recommend taping the form to the product. We also recommend recording the serial number and model before shipping for your reference.
3. To ensure the safe transportation of your unit to the factory, ship it in an original factory packing container.

If you don't have the original carton, you may obtain a product service foam-in-place shipping pack from the Crown Factory Service at the number listed below. For non-warranty service, you may also provide your own shipping pack, however we still recommend using a Crown Supplied Shipping Container. Minimum recommended requirements for materials are as follows: 275 P.S.I. burst test Double-Wall carton that allows for 2-inch solid Styrofoam on all six sides of unit or 3 inches of plastic bubble wrap on all six sides of unit; securely seal the package with an adequate carton sealing tape. Do not use light boxes or "peanuts." Damage caused by poor packing cannot be covered under warranty.

4. Do not ship the unit in any kind of cabinet (wood or metal). Ignoring this warning may result in extensive damage to the unit and the cabinet. Accessories are not needed-do not send the product documentation, cables and other hardware.

If you have any questions, please contact Crown Factory Service.

Crown Factory Service

1718 W. Mishawaka Rd.,
Elkhart, Indiana 46517 U.S.A.

Telephone: 574-294-8200
800-342-6939 (North America,
Puerto Rico, and Virgin Islands only)

Facsimile:
574-294-8301 (Technical Support)
574-294-8124 (Factory Service)

Internet:
http://www.crownaudio.com

Appendix

Warranty Statements
SST-SBSC Custom Configuration Form
Crown Factory Service Form

UNITED STATES & CANADA

SUMMARY OF WARRANTY

Crown International, Inc., 1718 West Mishawaka Road, Elkhart, Indiana 46517-4095 U.S.A. warrants to you, the ORIGINAL PURCHASER and ANY SUBSEQUENT OWNER of each NEW Crown product, for a period of three (3) years from the date of purchase by the original purchaser (the "warranty period") that the new Crown product is free of defects in materials and workmanship. We further warrant the new Crown product regardless of the reason for failure, except as excluded in this Warranty.

ITEMS EXCLUDED FROM THIS CROWN WARRANTY

This Crown Warranty is in effect only for failure of a new Crown product which occurred within the Warranty Period. It does not cover any product which has been damaged because of any intentional misuse, accident, negligence, or loss which is covered under any of your insurance contracts. This Crown Warranty also does not extend to the new Crown product if the serial number has been defaced, altered, or removed.

WHAT THE WARRANTOR WILL DO

We will remedy any defect, regardless of the reason for failure (except as excluded), by repair, replacement, or refund. We may not elect refund unless you agree, or unless we are unable to provide replacement, and repair is not practical or cannot be timely made. If a refund is elected, then you must make the defective or malfunctioning product available to us free and clear of all liens or other encumbrances. The refund will be equal to the actual purchase price, not including interest, insurance, closing costs, and other finance charges less a reasonable depreciation on the product from the date of original purchase. Warranty work can only be performed at our authorized service centers or at the factory. Warranty work for some products can only be performed at our factory. We will remedy the defect and ship the product from the service center or our factory within a reasonable time after receipt of the defective product at our authorized service center or our factory. All expenses in remedying the defect, including surface shipping costs in the United States, will be borne by us. (You must bear the expense of shipping the product between any foreign country and the port of entry in the United States and all taxes, duties, and other customs fees for such foreign shipments.)

HOW TO OBTAIN WARRANTY SERVICE

You must notify us of your need for warranty service within the warranty period. All components must be shipped in a factory pack, which, if needed, may be obtained from us free of charge. Corrective action will be taken within a reasonable time of the date of receipt of the defective product by us or our authorized service center. If the repairs made by us or our authorized service center are not satisfactory, notify us or our authorized service center immediately.

DISCLAIMER OF CONSEQUENTIAL & INCIDENTAL DAMAGES

YOU ARE NOT ENTITLED TO RECOVER FROM US ANY INCIDENTAL DAMAGES RESULTING FROM ANY DEFECT IN THE NEW CROWN PRODUCT. THIS INCLUDES ANY DAMAGE TO ANOTHER PRODUCT OR PRODUCTS RESULTING FROM SUCH A DEFECT. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATIONS OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

WARRANTY ALTERATIONS

No person has the authority to enlarge, amend, or modify this Crown Warranty. This Crown Warranty is not extended by the length of time which you are deprived of the use of the new Crown product. Repairs and replacement parts provided under the terms of this Crown Warranty shall carry only the unexpired portion of this Crown Warranty.

DESIGN CHANGES

We reserve the right to change the design of any product from time to time without notice and with no obligation to make corresponding changes in products previously manufactured.

LEGAL REMEDIES OF PURCHASER

THIS CROWN WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE. No action to enforce this Crown Warranty shall be commenced after expiration of the warranty period.

THIS STATEMENT OF WARRANTY SUPERSEDES ANY OTHERS CONTAINED IN THIS MANUAL FOR CROWN PRODUCTS.

7/01

THREE YEAR FULL WARRANTY

WORLDWIDE EXCEPT US & CANADA

SUMMARY OF WARRANTY

Crown International, Inc., 1718 West Mishawaka Road, Elkhart, Indiana 46517-4095 U.S.A. warrants to you, the ORIGINAL PURCHASER and ANY SUBSEQUENT OWNER of each NEW Crown1 product, for a period of three (3) years from the date of purchase by the original purchaser (the "warranty period") that the new Crown product is free of defects in materials and workmanship, and we further warrant the new Crown product regardless of the reason for failure, except as excluded in this Crown Warranty.

1 Note: If your unit bears the name "Amcron," please substitute it for the name "Crown" in this warranty.

ITEMS EXCLUDED FROM THIS CROWN WARRANTY

This Crown Warranty is in effect only for failure of a new Crown product which occurred within the Warranty Period. It does not cover any product which has been damaged because of any intentional misuse, accident, negligence, or loss which is covered under any of your insurance contracts. This Crown Warranty also does not extend to the new Crown product if the serial number has been defaced, altered, or removed.

WHAT THE WARRANTOR WILL DO

We will remedy any defect, regardless of the reason for failure (except as excluded), by repair, replacement, or refund. We may not elect refund unless you agree, or unless we are unable to provide replacement, and repair is not practical or cannot be timely made. If a refund is elected, then you must make the defective or malfunctioning product available to us free and clear of all liens or other encumbrances. The refund will be equal to the actual purchase price, not including interest, insurance, closing costs, and other finance charges less a reasonable depreciation on the product from the date of original purchase. Warranty work can only be performed at our authorized service centers. We will remedy the defect and ship the product from the service center within a reasonable time after receipt of the defective product at our authorized service center.

HOW TO OBTAIN WARRANTY SERVICE

You must notify your local Crown inporter of your need for warranty service within the warranty period. All components must be shipped in the original box. Corrective action will be taken within a reasonable time of the date of receipt of the defective product by our authorized service center. If the repairs made by our authorized service center are not satisfactory, notify our authorized service center immediately.

DISCLAIMER OF CONSEQUENTIAL & INCIDENTAL DAMAGES

YOU ARE NOT ENTITLED TO RECOVER FROM US ANY INCIDENTAL DAMAGES RESULTING FROM ANY DEFECT IN THE NEW CROWN PRODUCT. THIS INCLUDES ANY DAMAGE TO ANOTHER PRODUCT OR PRODUCTS RESULTING FROM SUCH A DEFECT.

WARRANTY ALTERATIONS

No person has the authority to enlarge, amend, or modify this Crown Warranty. This Crown Warranty is not extended by the length of time which you are deprived of the use of the new Crown product. Repairs and replacement parts provided under the terms of this Crown Warranty shall carry only the unexpired portion of this Crown Warranty.

DESIGN CHANGES

We reserve the right to change the design of any product from time to time without notice and with no obligation to make corresponding changes in products previously manufactured.

LEGAL REMEDIES OF PURCHASER

No action to enforce this Crown Warranty shall be commenced after expiration of the warranty period.

THIS STATEMENT OF WARRANTY SUPERSEDES ANY OTHERS CONTAINED IN THIS MANUAL FOR CROWN PRODUCTS.

12/01

THREE YEAR FULL WARRANTY

Crown Factory Service Information

Shipping Address: Crown Factory Service,
1718 W. Mishawaka Rd., Elkhart, IN U.S.A. 46517

Phone: 1-800-342-6939 or 1-574-294-8200 Fax: 1-574-294-8124

Owner's Name:_____

Shipping Address:_____

Phone Number: _____ **Fax Number:** _____

Model:_____ **Serial Number:** _____

Purchase Date: _____

NATURE OF PROBLEM

(Be sure to describe the conditions that existed when the problem occurred and what attempts were made to correct it.)

_____

_____

_____

_____

_____

_____

Other equipment in your system: _____

_____

_____

_____

_____

_____

If warranty has expired, payment will be:

☐ **Cash/Check** ☐ **VISA** ☐ **MasterCard** ☐ **C.O.D.** ☐ **P.O. from Dealer**

Card Number:_____

Exp. Date: _____ **Signature:**_____

ENCLOSE THIS PORTION WITH THE UNIT. DO NOT MAIL SEPARATELY.